

PATENT SPECIFICATION

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(19)



(54) JEWELRY

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S. W. 17., and IAN MELVYN KNIGHT of 158
Bedford Hill, London, S.W.17., both of
British Nationality, do hereby declare the
invention, for which we pray that a patent
may be granted to us, and the method by
which it is to be performed, to be particu-
larly described in and by the following
statement:—

This invention relates to jewellery, which
term is intended to include articles of
personal adornment, not necessarily formed
of precious materials.

According to the invention there is pro-
vided an article of jewellery comprising a
container, an electrical light signalling
device within the container, an electrical
power supply for the device, an electrical
oscillator circuit connected between the
power supply and the device and means for
attaching the container to the body or the
clothing of the wearer.

Preferably, the electrical power supply
is in the form of an electrical battery also
contained within the container. Two devices
may be provided, connected to the output
of the oscillator so that the devices are
energised alternately. The container may be
attached to the person or clothing of the
wearer by means of a necklace, or by means
of a brooch pin, for example.

An example of the invention will now
be described with reference to the ac-
companying drawings in which Figure 1 is
a front elevation of a necklace pendant,
Figure 1A is side elevation of the pendant
of Figure 1 and Figure 2 is a circuit dia-
gram of the pendant of Figure 1.

The pendant of Figure 1 is formed by
moulding an electrical oscillator circuit with
two lamps 11 in transparent thermosetting
potting material to form a cuboidal shape
container 12, a figure 8-shaped aperture 13
being moulded at the lower end for support-

ing a pair of hearing-aid batteries 14 for
energising an oscillator circuit 15 located
between the lamps 11 and batteries 14. A
hole 16 is moulded transversely at the top
of the block, through which a polished
finish circular wire 17 of about 4 inches
radius is passed. The ends of the wire 17
are formed as hooks 18 for hooking to-
gether, so that the wire 17 can be passed
around the neck of the wearer and the ends
hooked together behind the neck in order
to mount the block securely on the wearer
in front of the neck.

Figure 2 shows the circuit diagram of the
oscillator 15, which is of conventional form
and will not be described in detail. The
circuit is symmetrical, and energises the
light emitting diodes 11 in the collector
circuits of its transistors alternately. Light
emitting diodes are used in this embodiment,
since their power consumption is small, and
this enables small batteries to be used with
a life expectancy of many hours. More than
two lamps can be provided, divided into
two sets; the sets being energised alternately.

Clearly, other forms of active device
could be used to those shown in the circuit
diagram, including field effect transistors
and uni-junction transistors, silicon con-
trolled rectifiers, integrated circuits. The
polarity of the supply and the light emitting
diodes should be varied when the transistors
are changed from PNP to NPN.

The components of the circuit 15 are
mounted on a small printed circuit, and
are arranged in symmetrical fashion as
indicated in Figure 1, thus providing an
attractive design which can be viewed
through the transparent potting material. In
Figure 1, the pair of light emitting diodes
11 are shown at the top of the container 12,
with four resistors 21 arranged in a row
across the container, and a pair of capaci-
tors 22 mounted one above the other down
the centre of the container. The two

transistors 23 are mounted side by side near the lower end of the container, immediately above the aperture 13 for the batteries.

A switch (not shown) may be incorporated in the battery circuit, so that the oscillator 15 can be switched off when not required in order to extend the life of the batteries. Light emitting diodes are used as light signalling devices in the present embodiment, because they use very little current, and in certain applications it may be possible to mould the batteries within the potting material without provision for replacing the batteries or switching them off if the batteries can energise the lamps for a sufficiently long period.

The container for the lamps and the energising circuit can be made in any desired shape, and can be supported from the wearer's clothing for example by means of a brooch clip or pin, or formed on a bracelet.

Any type of electrical lamp can be used, although the choice will be restricted by the capacity of the power supply. Liquid crystals, including material such as tin, niobium, copper, barium and aluminium, have been suggested for use as light signalling devices by reflecting external light or an internal lamp.

Light emitting diodes may be made of any of the following materials: lead, selenium, Tellurium, Indium, sulphur, arsenic, gallium, phosphorus, boron, zinc, carbon, silicon, copper and cadmium.

WHAT WE CLAIM IS:—

1. An article of jewellery comprising a container, an electrical light signalling device within the container an electrical power supply for the device an electrical oscillator circuit connected between the power supply and the device and means for attaching the container to the body or the clothing of the wearer.

2. An article as claimed in Claim 1 wherein the power supply is contained in the container.

3. An article as claimed in Claim 1 or Claim 2 wherein at least some of the components within the container are permanently fixed therein by a thermosetting material.

4. An article as claimed in Claim 3 wherein said material is transparent.

5. An article as claimed in any one of Claims 1 to 4 comprising a plurality of electrical light signalling devices.

6. An article as claimed in Claim 5 wherein the devices are divided into sets, the sets being energisable alternately by the oscillator circuit.

7. An article as claimed in any one of Claims 1 to 6 wherein the attaching means comprises a necklace.

8. An article as claimed in any one of Claims 1 to 6 wherein the attaching means comprises a brooch pin.

9. An article as claimed in any one of Claims 1 to 6 wherein the attaching means comprises a bracelet.

10. An article as claimed in any one of Claims 1 to 9 wherein the or each device is an electrical lamp.

11. An article as claimed in claim 10 wherein the or each lamp is a light emitting diode.

12. An article as claimed in any one of Claims 1 to 9 wherein the or each device is a liquid crystal.

13. An article of jewellery substantially as herein described with reference to and as illustrated in the accompanying drawings.

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COMPLETE SPECIFICATION

1 SHEET

This drawing is a reproduction of the Original on a reduced scale

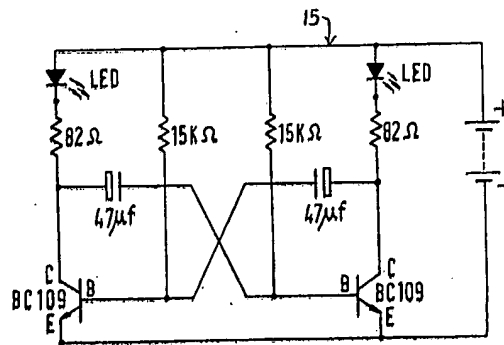
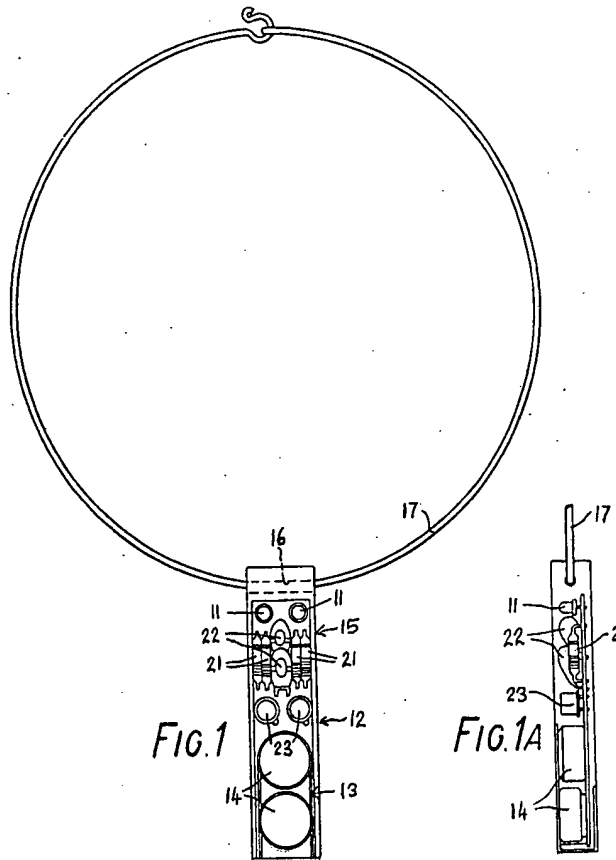


FIG. 2